DOCUMENT RESUME

ED 198 653 JC 800 190

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TITLE A Comparison of UW Performances of Community College Associate of Arts Degree Holders and Non-Degree Holders: A Preliminary Analysis. EAC Reports, Report #19.
INSTITUTION Washington Univ., Seattle. Educational Assessment Center.
PUB DATE May 78
NOTE 19p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Persistence: Associate Degrees: *College Attendance: College Credits: College Students: *College Transfer Students: Community Colleges: Comparative Analysis: *Educational Attainment: *Grade Point Average: Postsecondary Education: Two Year College Students: Universities

ABSTRACT

In 1978, a study was conducted of the community college students who, after attending one of seven participating colleges, entered the University of Washington in Fall 1973 and were still in attendance in Spring 1974. For these 479 transfer students the following data were collected: community college entrance status (had an associate degree or its equivalent, did not have an associate degree but had earned more than 75 academic transfer credits, or did not have an associate degree and had earned less than 75 academic credits), transfer credits earned, transfer academic grade point average (GPA), University of Washington GPA as of Spring 1974, cumulative University of Washington GPA as of Fall 1977, and undergraduate status in 1977 (had received a bachelor's degree, was still in school, or had withdrawn). Parallel data were collected for 100 native University of Washington students. With respect to rate of graduation, the students with an Associate of Arts (AA) degree had an advantage over transfer students who did not have the degree, although the native students had the highest graduation rate. However, with regard to cumulative University GPA, the receipt of the AA did not seem to have a strong impact. The regression results for the seven community colleges and the University indicated that the probability of obtaining at least a 2.00 GPA differed significantly according to sending institution. (AYC)

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ED188653

EAC
REPORTS

Report #19

# A Comparison of UW Performances of Community Colleges Associate of Arts Degree Holders and Non-Degree Holders: A Preliminary Analysis

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University of Washington

May 1978

Report #19

# A Comparison of UW Performances of Community College Associate of Arts Degree Holders and Non-Degree Holders: A Preliminary Analysis

Virginia A. de Wolf

This current report contains a preliminary analysis of part of the data from a broad, long-term study of community college (CC) students transferring into the University of Washington (UW) over a 4 year period. Specifically, data are presented for transfers entering the UW in autumn 1973 from 7 Washington State CC's who had attended just one collegiate institution (N=479). CC transfer were subdivided into 3 groups: those entering with an Associate of Arts (AA) degree, those without an AA but having greater than or equal to 75 academic transfer credits, and those without an AA but having less than 75 academic transfer credits. The 3 groups of CC transfers were compared and contrasted on UW "success"--success being defined as rate of graduation and UW cumulative grade point average (GPA). Data were also included for a comparable of UW "native" students. With respect to rate of graduation, the AA degree holders did have an edge over the other 2 groups of CC transfers but, overall, the group of UW natives had the highest rate of graduation. On the second success variable, UW cum GPA, the advantage of having entered with an AA was less clear-cut. Data reporting the probability of obtaining at least a 2.00 cum UW GPA is also included, separately for each of the 7 CC's and for the UW native group.

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Educational Assessment Center Project #524

A Comparison of UW Performances of Community College Associate of Arts Degree Holders and Non-Degree Holders: A Preliminary Analysis

Recently, the University of Washington (UW) revised its undergraduate admissions system to include equitable means for admitting freshmen, community college (CC) transfers, and transfers from 4-year colleges/universities. A description of this system, along with a detailed development of the prediction equations for the 1978-1979 applicants, can be found in Gillmore (Note 1). In Gillmore both types of transfer students, CC and 4-year college/university, were subgrouped according to number of transferable credits: greater than or equal to (GE) 75 credits and less than (LT) 75 credits. Subsequent to the dissemination of this report several questions were directed to the UW by the State Board of Community Colleges concerning the effect of receiving an Associate of Arts (AA) degree on "success" at the UW--success being defined in this study as rate of graduation and the cumulative grade point average (GPA) earned at the UW. To address this question CC transfers were subdivided into 3 distinct groups: those having received an AA, those not having an AA but having GE 75 transfer credits, and those not having an AA who had LT 75 academic credits. Then, the 3 groups be compared and contrasted on key performance variables.

In addition, beginning with admissions processing for the 1978-1979 academic year, the UW changed the way in which the transfer GPA would be calculated. Previously, the UW included grades earned in up to 15 credits of "grey area" or vocational/technical courses in the transfer GPA. For 1978-1979 the transfer GPA will be based solely upon grades earned in academic transfer coursework. Prior studies, such as Gillmore, included such "grey area" coursework in predicting UW success and, by doing so, perhaps gave an inaccurate picture of the performance of CC students at the UW. Thus, the current study followed the 1978-1979 guidelines so that transfer credits and transfer GPA of CC students studied were based only on academic coursework (besides "grey area" coursework, physical education activity courses were also excluded from these computations) in order that a more accurate assessment student performance be given.

A final series of questions arose which revolved around the fact that while many students attend more than one postsecondary institution prior to transferring into the UW, the University classifies these students only according to the last institution attended. Such record keeping procedures, while sufficient for

University purposes, might provide an inaccurate picture of particular CC's since UW data being reported on each individual Washington State CC were based on a "mixed bag" of students--those who had only attended just that one CC (termed "one CC students") and those who had attended a number of postsecondary institutions whose last college just happened to be that particular CC. A third major objective was to drop this latter group and just include one CC students in this study.

Therefore, a study evolved into one which was quite broad in scope and was to initially focus on the community college transfers. First, it was to include four groups of one CC transfers: those entering autumn quarter 1973 who were still in attendance spring quarter 1974, those entering autumn quarter 1974 who were still in attendance spring quarter 1975, those entering autumn quarter 1975 who were still in attendance spring quarter 1976, and those entering autumn quarter 1976 who were still in attendance spring quarter 1977. All Washington State community colleges were to be included. For all four groups of CC students, the CC transfer credits and transfer GPA were to be recomputed based solely upon academic coursework. In addition the following variables were to be collected: sex, UW major at end of first year, first year cum UW GPA, and total number of UW credits earned by end of first year. For the two earlier years of one CC transfer (i.e., those autumn 1973 and autumn 1974 entrants still in attendance the following spring quarter) additional data would be collected for the 8 CC's which had sent the largest numbers of one CC students to the UW, that is, Bellevus, Everett, Green River, Highline, North Seattle, Olympic, Seattle Central, and Shoreline: receipt of an AA, final UW undergraduate status as of autumn quarter 1977 (received a bachelor's, still in school, withdrew/dropped), final undergraduate major at UW as of autumn quarter 1977, cum UW GPA as of autumn quarter 1977, cum UW credits as of autumn quarter 1977, and total number of quarter enrolled as a UW undergraduate as of autumn quarter 1977.

Subsequent reports will contain similar data for the two other groups of UW undergraduate entrants: transfers have attended just one 4-year college/university in Washington State, and "native" freshmen, i.e., those students having entered the UW directly from a Washington State high school.

In order to facilitate the analysis and discussion of the issues involved, the current report will present just a portion of the CC data. Specifically, it will focus on those 7 of the 8 CC's that had provided lists of their AA recipients who had entered the UW in autumn 1973: Bellevue, Everett, Green River, Highline, North Seattle, Seattle Central, and Shoreline. In addition, similar data collected for a comparable group of UW natives will also be presented.

## Method

Sample. For 7 CC's that had provided lists of their AA degree recipients (Bellevue, Everett, Green River, Highline, North Seattle, Seattle Central, and Shoreline) Table 1 indicates that a total of 814 students who enrolled autumn quarter 1973 were still enrolled spring 1974. (In order to maintain the

Table 1

Community College (CC) Transfers Entering the UW Autumn Quarter 1973 still in Attendance Spring Quarter 1974 Having Attended just that one CC

| Community college | Total N | N (%) attending just that one CC |
|---|---|---|
| A | 126 | 63 (50%) |
| B | 75 | 53 (70%) |
| C | 74 | 45 (61%) |
| D | 130 | 91 (70%) |
| E | 119 | 65 (55%) |
| F | 82 | 50 (61%) |
| G | 207 | 112 (54%) |
| Total | 814 | 479 (59%) |

confidentiality of the data, the identities of these CC's have been masked by using alphabetic designators. The alphabetic designator of each college remains constant throughout the report with, for example, Community College A referring to the same institution in all tables.) Table 1 also presents the number of students from each of these CC's who had attended just that one community college (N=479 or 59%). Percentages ranged from 50% for Community College A to a high of 70% for Community Colleges B and D. The total group of 26 CC's in 1973 had a total of 779 one CC students. Thus, the 479 one CC students represented by these 7 CC's was about two-thirds of this group (61%).

For the native sample, the following criteria were used in order to pick a sample of 100 students: enrolled at the UW autumn quarter 1973; earned between 80-100 credits, inclusive, at the UW prior to autumn quarter 1973; and had graduated from a Washington State high school.

Variables. For the 479 one CC transfersthe following data were included: CC entrance group (had an AA or its equivalent the Associate in Arts and Science, did not have an AA but had GE 75 academic transfer credits, did not have an AA and had LT 75 academic transfer credits), CC transfer academic credits, CC transfer academic GPA, UW cum GPA as of spring quarter 1974, UW cum undergraduate GPA as of autumn quarter 1977, and UW undergraduate status as of autumn quarter 1977 (received a bachelor's, still in school, withdrew/dropped). For the 100 native students the combined UW freshman-sophomore cum GPA was considered to parallel the CC transfer academic GPA and the junior GPA (that is, the GPA earned between autumn quarter 1973 and spring quarter 1974, inclusive) was considered to parallel the UW cum GPA as of spring quarter 1974, since both GPA' reflected academic work cone at the UW for the same 3-quarter period. For the natives the UW junior-senior GPA was considered to parallel the final UW undergraduate GPA used for the CC transfers. The final variable included for the natives was UW undergraduate status as of autumn quarter 1977.

Statistical analyses. For the most part, data were presented as a series of "breakdowns" with the principal breadout variable being community college entrance category. Next, for each of the 7 community colleges 2 separate regression equations were developed using CC academic transfer GPA as the predictor and and were of the following form:

Predicted cum GPA A'73-Sp'74 = a + bx(CC academic transfer GPA) and

Predicted final UW undergraduate GPA = a + bx(CC academic transfer GPA).

For the natives the 2 regression equations were:

Predicted cum GPA A'73-Sp'74 = a + bx(UW freshman-sophomore GPA) and

Predicted UW junior-senior GPA = a + bx(UW freshman-sophomore GPA_.

The probability of obtaining a UW GPA of at least a 2.00 was computerd using a Z score computation:

$$Z = \frac{\text{Predicted UW GPA - 2.00}}{\text{Standard error of estimate}}$$

The Z values found by using the above equation were then entered into a normal curve table, and the proportion of the total area to the right of the Z value corresponded to the desired probability.

In addition, in order to ascertain if 2 unique subdivisions would yield different types of predictions for the 2 UW GPA criteria studied (the first subdivision being by degree, either with or without an AA, and the second being based strictly on the number of academic transfer credits without regard to AA degree, either GE 75 or LT 75), regression equations were also developed for each of the 4 groups represented by these 2 subdivisions of CC transfers. Z scores were computed and the probability of obtaining at least a 2.00 found by using a normal curve table.

## Results

Table 2 presents the breakdown of the three entrance categories separately for each community college. Overall, about one-third of the total group of one CC transfers had received an AA at the time of entrance to the UW in autumn 1973 (N = 151 or 32%). The range among the 7 colleges with respect to receipt of the AA was from a low of 23% for Community College A to a high of 47% for Community College B. The bulk of this group of students belonged to the "middle" category--having entered with greater than or equal to 75 academic transfer credits but without having received an AA (N = 219 or 46%).

Table 2

Entrance Category Separately for each Community College

| Community college | Entrance category[a] | | | |
|---|---|---|---|---|
| | AA | GE 75 academic credits | LT 75 academic credits | Total |
| | N (%) | N (%) | N (%) | N (%) |
| A | 14 (23%) | 33 (53%) | 15 (24%) | 62 (100%) |
| B | 25 (47%) | 19 (36%) | 9 (17%) | 53 (100%) |
| C | 16 (35%) | 23 (50%) | 7 (15%) | 46 (100%) |
| D | 25 (28%) | 42 (47%) | 23 (26%) | 90 (100%) |
| E | 15 (25%) | 29 (48%) | 17 (28%) | 61 (100%) |
| F | 15 (30%) | 27 (55%) | 7 (14%) | 49 (100%) |
| G | 41 (37%) | 46 (41%) | 24 (22%) | 111 (100%) |
| Total | 151 (32%) | 219 (46%) | 102 (22%) | 472 (100%) |

[a]The students not having received an Associate of Arts degree (or its equivalent the Associate in Arts and Science) were subdivided into two groups: those with greater than or equal to (GE) 75 academic transfer credits and those with less than (LT) 75 academic transfer credits.

Using the three entrance categories as the breakout variable, Table 3 presents the data on the first "success" variable, final UW undergraduate status as of autumn quarter 1977, separately for each of the community colleges. In addition, final UW undergraduate status for the native sample is also included in this table. It is clear from an examination of Table 3 that those having entered the UW with an AA did have a higher rate of graduation than students in either of the other 2 CC entrance categories (77% for AA'ers vs. 70% for those without an AA but GE 75 credits vs. only 44% for those without an AA with LT 75 credits). This holds true for all but two colleges, D and E, where the proportion of bachelor's recipients among the AA entran was less than that for the students without an AA but having GE 75 academic transfer credits. As for the group of UW natives, their rate of graduation was highest with 86% having received a bachelor's from the UW by autumn quarter 1977.

Table 3

Final UW Undergraduate Status, as of Autumn Quarter 1977,
by Entrance Group Separately for each College

| College | Entrance group[a] | UW status autumn 1977 | | | |
|---|---|---|---|---|---|
| | | Bachelor's N (%) | In school N (%) | W/D[b] N (%) | Total N (%) |
| Community College A | AA degree | 11 (79%) | -- | 3 (21%) | 14 (100%) |
| | GE 75 academic credits | 21 (64%) | 2 (6%) | 10 (30%) | 33 (100%) |
| | LT 75 academic credits | 7 (47%) | -- | 8 (53%) | 15 (100%) |
| | Total | 39 (63%) | 2 (3%) | 21 (34%) | 62 (100%) |
| Community College B | AA degree | 22 (88%) | -- | 3 (12%) | 25 (100%) |
| | GE 75 academic credits | 16 (79%) | 1 (5%) | 3 (16%) | 19 (100%) |
| | LT 75 academic credits | 3 (33%) | -- | 6 (67%) | 9 (100%) |
| | Total | 40 (75%) | 1 (2%) | 12 (23%) | 53 (100%) |
| Community College C | AA degree | 13 (81%) | 1 (6%) | 2 (13%) | 16 (100%) |
| | GE 75 academic credits | 17 (74%) | -- | 5 (22%) | 23 (100%) |
| | LT 75 academic credits | 4 (57%) | 1 (14%) | 2 (29%) | 7 (100%) |
| | Total | 34 (74%) | 2 (4%) | 9 (20%) | 46 (100%) |

Table 3 continued

| College | Entrance group[a] | UW status autumn 1977 | | | |
|---|---|---|---|---|---|
| | | Bachelor's N (%) | In School N (%) | W/D[b] N (%) | Total N (%) |
| Community College C | AA degree | 19 (75%) | 1 (4%) | 5 (20%) | 25 (100%) |
| | GE 75 academic credits | 34 (81%) | 3 (7%) | 5 (12%) | 42 (100%) |
| | LT 75 academic credits | 10 (43%) | 2 (9%) | 11 (48%) | 23 (100%) |
| | Total | 63 (70%) | 6 (7%) | 21 (23%) | 90 (100%) |
| Community College E | AA degree | 8 (53%) | -- | 7 (47%) | 15 (100%) |
| | GE 75 academic credits | 21 (72%) | 3 (10%) | 5 (17%) | 29 (100%) |
| | LT 75 academic credits | 5 (29%) | 3 (18%) | 9 (53%) | 17 (100%) |
| | Total | 34 (56%) | 6 (10%) | 21 (34%) | 61 (100%) |
| Community College F | AA degree | 11 (73%) | -- | 4 (27%) | 15 (100%) |
| | GE 75 academic credits | 16 (59%) | 1 (4%) | 10 (17%) | 27 (100%) |
| | LT 75 academic credits | 3 (43%) | -- | 4 (57%) | 7 (100%) |
| | Total | 30 (61%) | 1 (2%) | 18 (37%) | 49 (100%) |
| Community College G | AA degree | 32 (78%) | -- | 9 (22%) | 41 (100%) |
| | GE 75 academic credits | 28 (61%) | -- | 18 (39%) | 46 (100%) |
| | LT 75 academic credits | 13 (54%) | 4 (17%) | 7 (29%) | 24 (100%) |
| | Total | 73 (66%) | 4 (4%) | 34 (31%) | 111 (100%) |
| Community College Total | AA degree | 116 (77%) | 2 (1%) | 33 (22%) | 151 (100%) |
| | GE 75 academic credits | 152 (70%) | 10 (5%) | 56 (26%) | 218 (100%) |
| | LT 75 academic credits | 45 (44%) | 10 (10%) | 47 (46%) | 102 (100%) |
| | Total | 313 (66%) | 22 (5%) | 136 (29%) | 471 (100%) |
| UW native | | 86 (86%) | 3 (3%) | 11 (11%) | 100 (100%) |

[a]See footnote (a) in Table 2 for a description of the 3 Community College entrance groups.

[b]The W/D status category included not only those students who officially withdrew but also those who were dropped by the UW due to low academic performance. In addition, students who simply failed to return to the UW, and therefore did not complete a UW bachelor's, were also included in the W/D status.

With respect to the two UW GPA criteria studied, the advantage of having entered with an AA degree seemed to be less clear. As in Table 3, Table 4 again breaks down each community college by entrance category and presents the means (M) and standard deviations (SD) for the two UW criteria (UW GPA for the 3-quarter period of autumn quarter 1973 to spring quarter 1974, inclusive, and the final UW undergraduate cum GPA) and for the CC academic transfer GPA. Similar data are also included for the UW natives. Comparing the two criteria, the drop in GPA

Table 4

Community College Transfer Academic GPA, Autumn 1973 - Spring 1974 GPA and Final UW Cum GPA by Entrance Group Separately for each College

| College | Entrance group[a] (N) | Mean GPA | | | | | |
|---|---|---|---|---|---|---|---|
| | | CC academic transfer[b] | | A'73-Sp'74 UW cum[c] | | Final UW cum[d] | |
| | | M | SD | M | SD | M | SD |
| Community College A | AA degree (15) | 3.43 | .42 | 2.94 | .67 | 3.01 | .63 |
| | GE 75 academic credits (32) | 3.05 | .46 | 2.72 | .67 | 2.73 | .62 |
| | LT 75 academic credits (15) | 3.02 | .53 | 2.47 | .63 | 2.51 | .67 |
| | Total (62) | 3.14 | .50 | 2.71 | .69 | 2.74 | .66 |
| Community College B | AA degree (25) | 3.13 | .45 | 2.73 | .64 | 2.85 | .56 |
| | GE 75 academic credits (19) | 2.72 | .39 | 2.54 | .38 | 2.62 | .40 |
| | LT 75 academic credits (9) | 2.99 | .43 | 2.99 | .60 | 2.95 | .52 |
| | Total (53) | 2.96 | .46 | 2.70 | .57 | 2.78 | .52 |
| Community College C | AA degree (16) | 3.41 | .35 | 2.82 | .83 | 3.12 | .34 |
| | GE 75 academic credits (23) | 3.13 | .30 | 2.91 | .35 | 2.83 | .58 |
| | LT 75 academic credits (7) | 3.11 | .54 | 3.11 | .60 | 3.17 | .38 |
| | Total (46) | 3.23 | .38 | 2.91 | .61 | 2.98 | .50 |
| Community College D | AA degree (25) | 3.08 | .46 | 2.87 | .45 | 2.94 | .48 |
| | GE 75 academic credits (42) | 3.01 | .40 | 2.86 | .64 | 2.88 | .54 |
| | LT 75 academic credits (23) | 3.17 | .43 | 2.81 | .65 | 2.86 | .58 |
| | Total (90) | 3.07 | .43 | 2.85 | .60 | 2.89 | .54 |
| Community College E | AA degree (15) | 3.17 | .57 | 2.76 | .93 | 2.69 | .84 |
| | GE 75 academic credits (29) | 3.13 | .44 | 2.61 | .80 | 2.76 | .73 |
| | LT 75 academic credits (17) | 2.76 | .94 | 2.60 | .58 | 2.38 | .53 |
| | Total (61) | 3.04 | .67 | 2.64 | .78 | 2.64 | .73 |

Table 4 continued

| College | Entrance Group[a] (N) | Mean GPA: CC academic transfer[b] M | SD | A'73-Sp'74 UW cum[c] M | SD | Final UW cum[d] M | SD |
|---|---|---|---|---|---|---|---|
| Community College F | AA degree (15) | 3.28 | .41 | 3.01 | .60 | 3.05 | .55 |
| | GE 75 academic credits (27) | 3.07 | .37 | 2.67 | .55 | 2.79 | .55 |
| | LT 75 academic credits (7) | 2.71 | .29 | 2.46 | .55 | 2.22 | 1.10 |
| | Total (49) | 3.08 | .42 | 2.75 | .60 | 2.79 | .71 |
| Community College G | AA degree (41) | 3.20 | .42 | 2.81 | .63 | 2.94 | .56 |
| | GE 75 academic credits (46) | 3.10 | .46 | 2.67 | .63 | 2.70 | .60 |
| | LT 75 academic credits (24) | 3.07 | .56 | 2.60 | .66 | 2.73 | .58 |
| | Total (111) | 3.13 | .48 | 2.71 | .64 | 2.79 | .59 |
| Community college total | AA degree (152) | 3.22 | .46 | 2.84 | .67 | 2.94 | .58 |
| | GE 75 academic credits (218) | 3.05 | .43 | 2.72 | .63 | 2.77 | .59 |
| | LT 75 academic credits (108) | 3.00 | .60 | 2.69 | .66 | 2.68 | .67 |
| | Total (472) | 3.09 | .49 | 2.75 | .65 | 2.80 | .61 |
| UW natives (100) | --- (100) | 3.17 | .39 | 3.10 | .63 | 3.19 | .53 |

[a]See footnote (a) in Table 2 for a description of the 3 community college entrance groups.

[b]For the sample of UW natives, this column contains the combined freshman-sophomore UW cum GPA.

[c]This entry contains the UW GPA for the 3-quarter period of autumn '73 to spring '74, inclusive.

[d]For the sample of UW natives, this column contains the combined junior-senior UW cum GPA.

seemed to be greatest when contrasting the CC academic transfer GPA with the GPA earned during the first three quarters at the UW (3.09 vs. 2.75 for the total group of CC transfers regardless of entrance category). In almost all instances the UW GPA did rise between this 3-quarter GPA and the final UW undergraduate GPA. This was probably due to the fact that those transfers who experienced academic difficulty would have been less likely to have remained at the University to complete an academic degree program. The UW native group was superior to all CC subgroups on both criteria with their mean GPA for their junior year being 3.10 and their junior-senior UW cum GPA 3.19. In comparison with the total group of UW juniors as of spring quarter 1974 (cum GPA = 2.85, SD - .58), the 3-quarter autumn 1973 to spring 1974 cum GPA for the AA holders was just about identical (2.84) with those of the other two CC entrance groups being much lower (2.72 and 2.69), while the junior year GPA for the native sample surpasses this "all-junior" mean GPA (3.10).

In contrast to the data in the preceding paragraph which suggests minimal impact of an AA on the two UW GPA criteria, the AA entrants do have superior academic transfer GPA means than either of the other two entering groups (3.22 vs. 3.05 vs. 3.00). In fact, the total group of transfers entering the UW with an AA had a higher mean GPA than the comparable combined freshman-sophomore mean GPA for the UW natives (3.22 vs. 3.17).

Next, for each of the community colleges 2 separate regression equations were developed predicting each of the UW GPA criteria from the CC academic transfer GPA. Two similar equations were also developed for the UW natives using the combined UW freshman-sophomore GPA as the predictor. Table 5 presents the predicted GPA (GPA') and the associated probability of obtaining at least a 2.00 ofr the predictor GPA's of 2.00, 2.50 and 3.00 based upon these regression equations. The correlations (r's) and the standard errors of estimate (SE est's) are also presented. For each collegiate group the correlation between the predictor GPA and the final UW GPA (for the natives the junior-senior GPA) was higher than the correlation with the 3-quarter GPA. The community colleges differed most noticeably with respect to the probability of obtaining at least a 2.00 for both criteria when a GPA of 2.00 was the predictor, with Community College C surpassing the UW native group for both criteria.

Table 5

Predicted GPA and Associated Probability (P) of Obtaining at Least a 2.00 Separately for the 2 UW GPA Criteria for each Community College and for the UW Natives

| Criterion | | Community colleges | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | B | | C | | D | | E | | F | | G | | Natives | |
| | | GPA' | P | GPA' | P | GPA' | P | GPA' | P | GPA' | P | GPA' | P | GPA' | P | GPA' | P |
| 3-quarter cum GPA for autumn 1973 to spring 1974 inclusive | | | | | | | | | | | | | | | | | |
| Predictor GPA: | 2.00[a] | 1.70 | .28 | 2.04 | .53 | 2.48 | .79 | 2.01 | .51 | 2.08 | .53 | 1.61 | .18 | 1.70 | .27 | 2.15 | .62 |
| Predictor GPA: | 2.50[a] | 2.15 | .61 | 2.39 | .79 | 2.65 | .86 | 2.41 | .80 | 2.35 | .70 | 2.13 | .62 | 2.14 | .61 | 2.55 | .87 |
| Predictor GPA: | 3.00[a] | 2.59 | .87 | 2.73 | .94 | 2.83 | .92 | 2.80 | .95 | 2.63 | .82 | 2.65 | .94 | 2.59 | .89 | 2.96 | .97 |
| $r$ | | .645 | | .5539 | | .2191 | | .572 | | .4694 | | .7004 | | .6586 | | .4965 | |
| $SE_{est}$ | | .5292 | | .4783 | | .5967 | | .4899 | | .6921 | | .4259 | | .4847 | | .5483 | |
| Final UW undergraduate GPA[b] | | | | | | | | | | | | | | | | | |
| Predictor GPA: | 2.00[a] | 1.75 | .31 | 2.13 | .63 | 2.35 | .81 | 2.01 | .51 | 2.01 | .51 | 1.50 | .16 | 1.83 | .65 | 2.29 | .74 |
| Predictor GPA: | 2.50[a] | 2.19 | .65 | 2.47 | .87 | 2.61 | .94 | 2.42 | .85 | 2.27 | .76 | 2.09 | .57 | 2.26 | .73 | 2.67 | .93 |
| Predictor GPA: | 3.00[a] | 2.63 | .90 | 2.81 | .98 | 2.86 | .99 | 2.84 | .98 | 2.53 | .80 | 2.69 | .92 | 2.68 | .94 | 3.06 | .99 |
| $r$ | | .6717 | | .6056 | | .3951 | | .667 | | .5083 | | .7146 | | .686 | | .5541 | |
| $SE_{est}$ | | .4873 | | .4121 | | .4611 | | .3991 | | .6270 | | .4934 | | .4308 | | .4449 | |

[a]For the UW natives, the combined freshman-sophomore GPA was the predictor and for the transfers it was the community college academic transfer GPA.

[b]For the UW natives, the junior-senior GPA was the criteria.

Lastly, transfers were grouped by 2 different methods, first by CC degree (with or without an AA) and second by academic transfer credits without regard to AA degree (GE 75 or LT 75) in order to see if the 2 pairs of regression equations would yield different predictions for the 2 UW GPA criteria. Table 6 presents the correlations of the CC academic transfer GPA with each of the two UW GPA criteria, and the standard error of estimate for each. Data for the UW natives are also included. With respect to the first CC subgrouping by degree, the correlations for the AA recipients were higher than the corresponding correlations for the non-AA recipients for both criteria. When the CC transfers were subdivided by academic transfer credits, the correlations for those having GE 75 academic transfers credits were higher than the corresponding correlations for those having LT 75 credits, again for both criteria.

After developing 10 prediction equations (one for each UW GPA criteria for each of the 5 groups represented by Table 6), GPAs were predicted, and Z scores computed. The probabilities of obtaining a 2.00 UW GPA were obtained by consulting a normal curve table. The analysis, based on this group of 479 CC transfers, showed that the two different methods of subdividing the CC transfers yielded essentially the same predictions for both UW GPA criteria. That is, for the UW cum GPA for the 3-quarters of autumn 1973 to spring 1974, a 2.50 academic transfer GPA gave those without an AA slightly better than a 70% chance and those with an AA slightly less than a 70% chance of obtaining at least a UW GPA of 2.00. For the second subdivision, those with LT 75 credits had better than a 70% chance and those with GE 75 credits slightly less than a 70% chance of obtaining at least a UW GPA of 2.00. For the second subdivision, those with LT 75 credits had better than a 70% chance and those with GE 75 credits slightly less than a 70% chance of obtaining a UW GPA of 2.00 or better during this three-quarter period. For the final UW undergraduate GPA, a 2.50 academic transfer GPA gave all 4 groups about a 75% chance of obtaining a final UW GPA of at least a 2.00. In contrast, for the UW natives a 2.50 combined freshman-sophomore GPA yielded an 87% chance of having a 3-quarter UW GPA of 2.00 or better while it predicted a 93% chance of having a junior-senior GPA of at least a 2.00.

Table 6

Correlations ($r$) and Standard Error of Estimate ($SE_{est}$) for the two UW GPA Criteria, 3-quarter GPA for the Period Autumn 1973 to Spring 1974 and Final UW Undergraduate cum GPA, Separately for Community College Transfers Grouped by 2 Different Methods and for UW Natives

| Criterion | Community college transfers[a] | | | | Natives[a] |
|---|---|---|---|---|---|
| | Grouped by degree | | Grouped by transfer credits | | |
| | --Without AA-- | -With AA- | --LT 75-- | --GE 75-- | |
| 3-quarter cum GPA for autumn 1973 to spring 1974, inclusive | | | | | |
| $r$ | .5292 | .6099 | .4858 | .5907 | .4965 |
| $SE_{est}$ | .5411 | .5339 | .5727 | .5249 | .5483 |
| $N$ | 317 | 152 | 101 | 368 | 98 |
| Final Undergraduate cum GPA[b] | | | | | |
| $r$ | .5674 | .6837 | .5423 | .6384 | .5541 |
| $SE_{est}$ | .5105 | .4233 | .5644 | .4566 | .4449 |
| $N$ | 320 | 152 | 102 | 370 | 97 |

[a]For the community college transfers the predictor GPA was the academic CC transfer GPA and for the UW natives it was the combined freshman-sophomore UW cum GPA.

[b]For the UW natives, this is the junior-senior UW cum GPA.

## Discussion

First, depending upon which criteria of University "success" one examines, the AA degree may or may not have an impact, based upon this preliminary analysis. With respect to graduation rate, the AA holders did seem to have an edge over the other two entrance groups (77% for the AA holders vs. 70% for those without an AA but with GE 75 academic transfer credits vs. 44% for those without an AA but with LT 75 academic transfer credits). However, with respect to the 2 UW GPA criteria, Table 4 suggests that receipt of an AA does not seem to have a strong impact.

The regression results for the 7 community colleges and the UW natives in Table 5 suggest that the probability of obtaining at least a 2.00 at the UW does differ depending upon one's sending institution, particularly with respect to a CC academic transfer GPA of 2.00. In fact, Community College C surpassed the UW natives on both criteria (79% vs. 62% for the 3-quarter UW GPA and 81% vs. 74% for the junior-senior GPA).

Lastly, the prediction of the 2 UW GPA criteria seemed to be quite similar regardless of whether the transfer students were grouped by degree (with or without an AA) or by academic transfer credits without regard to the AA (GE 75 or LT 75). Of course, it is apparent that only after all data for the entire 4 years of CC entrance is collected and thoroughly analyzed can more definite statements be made concerning the impact of the community college Associate of Arts degree on success at the University of Washington.

## Reference Note

1. Gillmore, G. M. The University of Washington uniform admissions system description and prediction equations for the 1978-79 applicants (Project report # 577). Seattle: University of Washington, Educational Assessment Center, January 1978.

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